

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES 1 of 2
2. AMENDMENT/MODIFICATION NO. <div style="text-align: center;">2</div>	3. EFFECTIVE DATE <div style="text-align: center;">18-Jul-2002</div>	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. <i>(If applicable)</i>	
6. ISSUED BY US Army Corps of Engineers, Kansas City District 760 Federal Building, 601 East 12th Street Kansas City, Missouri 64106-2896		7. ADMINISTERED BY <i>(If other than item 6)</i>		
8. NAME AND ADDRESS OF CONTRACTOR <i>(No., street, county, State and ZIP Code)</i>		(X) 9a. AMENDMENT OF SOLICITATION NO. X DACW41-02-B-0008 9b. DATED <i>(SEE ITEM 11)</i> 6/13/2002 10a. MODIFICATION OF CONTRACT/ORDER NO. 10b. DATED <i>(SEE ITEM 13)</i>		
CODE                      FACILITY CODE		11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS		
<input checked="" type="checkbox"/> The above number solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegraph which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA <i>(If required)</i>				

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.	
(X)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: <i>(Specify authority)</i> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBER CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES <i>(such as changes in paying office, appropriation date, etc.)</i> SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF:
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER <i>(Specify type of modification and authority)</i>

**E. IMPORTANT:** Contractor ☐ is not, ☐ is required to sign this document and return \_\_\_\_\_ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION <i>(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)</i>	
Marysville Levee and Railroad Relocation Project, Big Blue River, Kansas  The Solicitation is amended in accordance with the attached pages.	

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER <i>(Type or print)</i>		16A. NAME AND TITLE OF CONTRACTING OFFICER <i>(Type or print)</i>	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
_____ <i>(Signature of person authorized to sign)</i>		BY _____ <i>(Signature of Contracting Officer)</i>	

The SOLICITATION is amended as follows:

1. SPECIFICATIONS:

Narrative Change: Section 00700, paragraph titled "52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990)" is deleted in its entirety.

Revised Pages: The following pages are deleted and replaced with revised pages of the same numbers. Copies of the revised pages are attached.

Cover  
00010-4  
00010-5  
01100-2  
01312-3  
01330-4  
01451-2  
01500-3  
01500-4  
D2  
02331-8  
02331-11  
02331-12

**NOTICE: Revisions in Sections 01500 and 02331 will have caused re-pagination in the pages following the revisions.**

2. Bidders are required to acknowledge receipt of this amendment on the Bidding Form, in the space provided, or by separate letter or telegram prior to opening of bids. Failure to acknowledge all amendments may cause rejection of the bid.

3. Bids will be received until 2:00 p.m., local time, 6 August 2002, in Room 760 Federal Building, 601 E. 12<sup>th</sup> Street, Kansas City, Missouri 64106-2896. and at that time publicly opened.

Encls

1. Spec pg as listed



DACW41-02-B-0008-0002

**US Army Corps  
of Engineers**

Kansas City District  
*You Matter - We Care*

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# **Marysville Levee and Railroad Relocation Project**

## **Big Blue River, Kansas**

### **Construction Solicitation and Specifications**

**June 2002**

This is a Support for Others Program  
Procurement and is not funded by the  
Department of Defense

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## BIDDING SCHEDULE (Continued)

<u>Item No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Estimated Amount</u>
0018	RCP Alterations (Sta 7817+00+/-)	JOB	LS	----	\$_____
0019	CMP (STA 76+10+/- East River Road)	JOB	LS	----	\$_____
0020	CMP (STA 4+95+/- Best Wall Spur)	JOB	LS	----	\$_____
0021	RR Drainage System	JOB	LS	----	\$_____
0022	Surcharge Fill	JOB	LS	----	\$_____
0023	Turf Reinforcement Mat	JOB	LS	----	\$_____
0024	Separation/Filtration Geotextile	JOB	LS	----	\$_____
0025	Seeding and Mulching	JOB	LS	----	\$_____
0026	Compacted Fill	1,700,000	CY	\$_____	\$_____
0027	Uncompacted Fill	125,000	CY	\$_____	\$_____
0028	Rock Stabilization of Subgrade	25,000	ton	\$_____	\$_____
0029	Riprap	45,000	ton	\$_____	\$_____
0030	Aggregate Surfacing	14,000	ton	\$_____	\$_____
0031	Subballast Course	97,000	ton	\$_____	\$_____
0032	Inspection Trench	16,000	LF	\$_____	\$_____
TOTAL				\$_____	

## BIDDING SCHEDULE (Continued)

**NOTICE TO BIDDERS:** For your bid to be responsive, you must declare below the single accounting practice that you apply to contracts to calculate field office overhead for all change orders, modifications and requests for equitable adjustment. Pursuant to Federal Acquisition Regulations (FAR) Parts 31.105(d)(3) and 31.203(d)(1), an accounting practice that varies from modification to modification is not allowable. Select one of the following:

**1. TIME DISTRIBUTION BASE FOR A PER DIEM RATE** \_\_\_\_\_

If you use this practice, see Paragraph  
"Field Office Overhead Per Diem Rate".

**2. DIRECT COST DISTRIBUTION BASE FOR A PERCENTAGE MARKUP** \_\_\_\_\_

If you use this practice, see Paragraph  
"Field Office Overhead Percentage Markup".

**3. OTHER ACCOUNTING PRACTICE THAT IS ALLOWABLE  
UNDER THE FAR AND THAT USES A SINGLE DISTRIBUTION BASE** \_\_\_\_\_

**YOU MUST DESCRIBE THE ACCOUNTING PRACTICE IN SUFFICIENT DETAIL BELOW TO  
ALLOW THE CONTRACTING OFFICER TO DETERMINE WHAT ACCOUNTING PRACTICE IS  
BEING UTILIZED BY YOUR COMPANY AND THAT IT COMPLIES WITH THE FAR.**

**FAILURE TO FULLY COMPLY WITH THE ABOVE REQUIREMENT OR, IF  
ALTERNATIVE 3 IS DECLARED, FAILURE TO PROVIDE A DESCRIPTION WHICH  
CLEARLY STATES OR DESCRIBES A CONSISTENT ACCOUNTING PRACTICE  
USING A SINGLE DISTRIBUTION BASE, WILL BE CAUSE FOR YOUR BID TO BE  
REJECTED.**

**NOTES:**

- (1) Bid prices must be entered for all items of the Bidding Schedule. Award will be made as a whole to one Contractor.
- (2) All quantities are estimated.
- (3) All extensions of the unit prices shown will be subject to verification by the Contracting Officer. In case of variation between the unit price and the extension, the unit price will be considered to be the bid.

to determine and comply with the prevailing area practice. Inquiries regarding a prevailing area practice should be directed to the Corps of Engineers, Contractor Industrial Relations Specialist (telephone number 816-983-3723) or to the Department of Labor Regional Wage and Hour Division.

Application of wage rates and fringe benefits: For the application of wage rates and fringe benefits contained in the Decisions of the Secretary of Labor, attached to and a part of this contract, TEXT DELETED all construction is considered Heavy Construction.

#### 1.5 PAYMENTS TO SUBCONTRACTORS

The Contractor's attention is directed to CONTRACT CLAUSE titled "Payment Under Fixed-Price Construction Contracts." In addition to the requirements set forth in the referenced paragraph, the Government will reimburse the Contractor, upon request, for amount of premiums paid by the subcontractors for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor furnishes evidence of full payment to the surety.

#### 1.6 PAYMENTS TO CONTRACTOR

The following is an example of a Contractor's release of claims clauses required to comply with the provisions of paragraph (h) of the CONTRACT CLAUSE titled "Payments Under Fixed-Price Construction Contracts":

##### RELEASE OF CLAIMS

The undersigned Contractor under contract dated \_\_\_\_\_, 2002, between the United States of America and said Contractor for the \_\_\_\_\_ located at \_\_\_\_\_, in accordance with paragraph (h) of the CONTRACT CLAUSE titled "Payments Under Fixed-Price Construction Contracts" of said contract, hereby releases the United States, its officers, agents, and employees from any and all claims arising under or by virtue of said contract or any modification or change thereof except with respect to those claims, if any, listed below:

(Here itemize claims and amounts due.)

#### 1.7 PARTNERING

The Government intends to encourage the foundation of a cohesive partnership with the Contractor and its subcontractor. This partnership will be structured to draw on the strengths of each organization to identify and achieve mutual goals with the intent to complete the Contract within budget, on schedule and in accordance with plans and specifications.

This partnership will be bilateral in makeup, and participation will be totally voluntary. Any cost associated with implementing this partnership will be agreed to by the Contractor and the Government, and will be shared equally with no change in Contract price. To implement this partnership initiative, it is anticipated that thirty (30) days after Notice to Proceed, a team building workshop will be conducted. Follow-up workshops will be held periodically throughout the duration of the Contract as agreed to by the Contractor and the Government.

#### 1.8 PROSPECTIVE CONTRACTOR RESPONSIBILITY

#### 4.3 DELETED

TEXT DELETED.

#### 1.6 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for RMS-QC. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

#### 1.7 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the RMS-QC database throughout the duration of the contract. The Contractor shall establish and maintain the RMS-QC database at the Contractor's site office. Data updates to the Government shall be submitted by E-mail with file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer, a data diskette or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM). The RMS-QC database typically shall include current data on the following items:

##### 1.7.1 Administration

##### 1.7.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of RMS-QC software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

##### 1.7.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in RMS-QC. Within 14 calendar days of receipt of RMS-QC software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

##### 1.7.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

##### 1.7.1.4 Requests for Information

RMS-QC includes a means for the Contractor to enter, log, and transmit

Kansas Department of Transportation  
ATTN: Rex Fleming  
9th Floor-Docking State Office Building  
915 Harrison  
Topeka, Kansas 66612-1568

Items to be sent to the Union Pacific Railroad (UPRR) shall be sent to the address as follows:

Union Pacific Railroad  
ATTN: Tony Hiestand  
1416 Dodge Street  
Room 1030  
Omaha, NE 68179

Items to be sent to Kirkham Michael Consultants (KM) shall be sent to the following address:

Kirkham Michael Consulting Engineers  
ATTN: Kyle Anderson  
12700 W. Dodge Rd.  
P.O. Box 542030  
Omaha, NE 68154-8030

Items to be sent to HWS Consulting Group (HWS) shall be sent to the following address:

HWS Consulting Group  
ATTN: Randy Kaster  
10844 Old Mill Road, Suite 1  
Omaha, NE 68154

For each item submitted to Engineering and Construction or the Architect/Engineer, a copy of the corresponding ENG Form 4025 and all enclosures shall be submitted to the Field Office.

### 3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

### 3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

### 3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Four copies of the submittal will be retained by the



The Contractor shall furnish for review by the Government, not later than 20 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

### 3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to a responsible officer of the company.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

The open site available for storage shall be as indicated. The storage area shall be located approximately at STA 7790+00 as shown on plans .

#### 1.7 TEMPORARY SANITARY FACILITIES

Provide adequate sanitary conveniences of a type approved for the use of persons employed on the work, properly secluded from public observation, and maintained in such a manner as required and approved by the Contracting Officer. Maintain these conveniences at all times without nuisance. Upon completion of the work, remove the conveniences from the premises, leaving the premises clean and free from nuisance. Dispose of sewage through connection to a municipal, district, or station sanitary sewage system. Where such systems are not available, use chemical toilets or comparably effective units, and periodically empty wastes into a municipal, district, or station sanitary sewage system, or remove waste to a commercial facility. Include provisions for pest control and elimination of odors. Provide temporary sewer and sanitation facilities that are self-contained units with both urinals and stool capabilities. Ventilate the units to control odors and fumes and empty and clean them at least once a week or more often if required by the Contracting Officer. The doors shall be self-closing. Locate the facility behind the construction fence or out of the public view.

#### 1.8 TEMPORARY BUILDINGS

Temporary facilities (including trailers) shall be in like new condition. Locate these facilities where directed and within the indicated operations area. Storage of material/debris under such facilities is prohibited. Contractor shall be responsible for the security of the stored property.

##### 1.8.1 Maintenance of Temporary Facilities

Suitably paint and maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal. Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse, with construction equipment or other vehicles, grassed or unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways; gravel gradation shall be at the Contractor's discretion. Grass located within the boundaries of the construction site and all storage areas shall be mowed for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers shall be edged or trimmed neatly. At no time shall the height of the grass exceed 4-inches. Weeds shall be controlled and not exceed grass height.

##### 1.8.2 Resident Engineer's Office

The Contractor shall furnish a temporary office facility approximately 12 feet by 70 feet with a minimum of 840 square feet of floor space. It shall be located where directed and shall be reserved for Government personnel only. Gravel parking area for a minimum of four vehicles will be provided and reserved for the sole use of the Government. Access from the parking area to the office shall be by elevated walkway or concrete sidewalks. The steps and landings at the doors shall be substantial.

The office facility and parking area shall be fenced with 6-foot chain link fence and triple strand barbed wire top. A minimum of 15-foot clearance

shall be provided between the fencing and the trailer. Security lighting on poles around the site shall be provided to ensure site is well lighted during the night.

The Contractor shall furnish bottled drinking water, thermostatically controlled space heat, ventilation, and air conditioning, electric light (suitable for an office environment), sufficient power, and toilet facilities consisting of one lavatory, one water closet, one urinal. The toilet shall be complete with hot and cold running potable water, sewer, and powered bathroom ventilation.

Utilities shall be connected and disconnected by the Contractor in accordance with local codes and to the satisfaction of the Contracting Officer. The facility shall be laid out and furnished as follows:

There shall be two private offices, one at each end furnished with two desks each, two office chairs each, two four-drawer legal size file cabinets each, one telephone instrument, one computer, and one printer. The center area between the offices shall be a conference area furnished with a conference table and chairs for ten persons, three four drawer legal-size file cabinets, a table for the fax machine, a digital fax machine, a copying machine that is 11 x 17 capable, a mobile plan rack, and a movable plan table large enough to accommodate full scale drawings. The required phone lines shall be extended to both offices (phone and data) and one corner location (phone, data, and fax) in the conference room. Three telephone instruments shall be provided. The two in the offices shall be desk or wall mounted. The instrument in the conference room shall be cordless.

The minimum configuration for the two computers is:

Base Unit:

OptiPlex GX240, Pentium 4, 1.7GHz, 256K Cache, Gray Small Minitower Base, IncludesPCI Riser (220-5727)

Memory:

512MB, NonECC, PC133 SDRAM, 2X256, GX240 (311-1471)

Keyboard:

Dell Enhanced Quiet Key PS/2 Rubberdome "3 Hot key" Keyboard, Gray, OptiPlex (310-0762)

Monitor:

Dell P992, AG Trinitron, 17.9 Inch Viewable Image Size, Optiplex, Gray (320-1729)

Video Card:

32MB, ATI, Rage Ultra 128, Video Card, (Full Height), GX240 (320-1734)

Hard Drive:

40GB EIDE, 7200 RPM, ATA/100 Hard Drive, GX240 (340-3585)

Floppy Disk Drive:

3.5 inch, 1.44MB, Floppy DriveOptiplex (340-2901)

Operating System:

Windows 2000,SP1,FAT32,CD, English (420-0259)

Mouse:

## DIVISION 2 – SITE WORK

02220	Demolition and Debris Removal
02230	Clearing and Grubbing and Stripping
02315	Excavation, Trenching, and Backfilling for Buildings
02331	Levee Construction and Earthwork
02370	Turf Reinforcement Mat
02373	Separation/Filtration Geotextile
02380	Riprap
02464	Metal Sheet Piling
02531	Storm Sewers
02630	CMP Culverts
02631	Railroad Drainage System
02721	Subballast Courses
02731	Aggregate Surface Course
02821	Fencing
02915	Transplanting Exterior Plant Material
02921	Seeding

Materials for embankment and backfill construction will be obtained from required excavation, required borrow areas, and other available onsite borrow areas as shown in the contract documents. The Contractor may obtain material from offsite borrow areas that have been approved by the Contracting Officer. Materials obtained from required excavation which meet or which can be processed to meet the requirements for each embankment material, or any other material required for this project, as specified herein, may be utilized in the appropriate zone of the embankment or as backfill. All roots, limbs, and wood fragments shall be removed from embankment materials. Materials containing sod, other organic or perishable material, trash, debris, and frozen materials shall not be used in the embankment except in areas designated for disposal. The Contractor shall submit to the Contracting Officer the source or sources from which he intends to obtain materials for embankment construction. If a source is selected other than a commercial quarry or other commercial entity from which earth or rock material will be directly purchased and where the Contractor or his subcontractor will perform the borrow excavation, a written statement will be provided to the Contracting Officer indicating permission to utilize the area. It shall be the responsibility of the Contractor to obtain Federal, State, and local permits which may be required for excavation and reclamation of the borrow area. A copy of the plan and procedures to be utilized for reclamation shall be furnished to the Contracting Officer as required in these specifications. The Contracting Officer will require material samples from any proposed borrow source to be submitted as indicated in paragraph FIELD QUALITY CONTROL.

The Contractor shall coordinate with the Kansas Department of Transportation (KDOT) regarding the intersections of the haul roads and KDOT's roadways. KDOT will thicken the roadway surface at the proposed intersection(s) to prevent damage to the roadway from the Contractor's operation. The Contractor should assume no flagging or other traffic control will be required at the intersection of haul roads and KDOT's roadways.

#### 1.5.4 Haul Roads

Haul roads shall be located and constructed as approved by the Contracting Officer. Prior to the commencement of construction the contractor shall submit for approval a site plan detailing the location of all haul roads within the project limits. Areas on each side of the borrow haul road corridor in the vicinity of the US 36 bridge, US 77 bridge, and UPRR rail yard shall not be disturbed. The Contractor shall coordinate with other contractors performing work and the UPRR to minimize interference with operations of others. Haul roads which cross railroad tracks must be approved in advance by the Union Pacific Railroad company. Non-public, railroad grade crossings may not be used by construction equipment unless a railroad flagman is present, as outlined in Section 01100. Haul roads shall be constructed to maintain the intended traffic, be free draining, and be maintained in good condition throughout the contract period. Any haul road which crosses any creek or drainage channel shall be constructed, and maintained by the Contractor so as to not flood either upstream areas by restricting stream flows or flood downstream areas by the release of any stored water in the event that the crossing fails for any cause. Haul roads constructed during the contract duration shall be removed after work is completed and the impacted area restored to its preconstruction conditions. The Contractor shall plow and/or scarify or otherwise loosen all access and haul roads other than existing roads to a minimum of 6 inches deep and the surface shall be left in a smooth condition. All haul roads within the right-of-way that will remain as public thoroughfares after

Random fill may consist of satisfactory cohesive materials, satisfactory cohesionless materials, or any combination of them.

#### 2.1.3 Railroad Fill

Railroad fill may consist of satisfactory cohesive materials , satisfactory cohesionless materials, or any combination of them. Railroad fill in the upper 36 inches of all embankment side slopes and the upper 36 inches of subgrade shall consist of satisfactory materials classified as ML or CL in accordance with ASTM D 2487, and shall have a maximum plasticity index of 30 in accordance with ASTM D 4318. Topsoil shall be placed over the 24 inches of satisfactory CL or ML material where surfacing is not required.

#### 2.1.4 Topsoil

In general, topsoil material shall be material organic in nature and capable of sustaining the specified vegetative growth. Topsoil material shall be the material stripped in preparation of the fill, excavation, or general construction. Stripped material is addressed within Section 02230, CLEARING, GRUBBING, AND STRIPPING. Topsoil from offsite sources, proposed by the Contractor and approved by the COR, shall be supplemented as necessary when there is insufficient acceptable on-site sources. Topsoil material shall be free from clay lumps, weeds, litter, brush, matted roots, toxic substances, or any material harmful to plant growth or which would hinder grading, planting, operation, or maintenance operations. Topsoil material shall not contain more than 5 percent by volume of stones or other such objects larger than 1 inch in any dimension. Topsoil material shall be such that a minimum of 50 percent of the soil particles pass a U.S. Standard No. 200 sieve.

#### 2.1.5 Work Platform/Stabilization Material

Work platform/stabilization material shall consist of crushed granular material obtained from a source provided by the Contractor. Work platform/stabilization material shall be free of silt, clay, or other earth materials in quantities greater than 5 percent by weight, and shall contain no debris or organic material. Work platform/stabilization material shall be reasonably well graded and the largest stones shall have a maximum dimension not exceeding 18-inches. Work platform/stabilization material placed within 3-feet of any structure shall have a maximum size of 2-inches. A separation/filtration fabric as specified in Section 02373 shall be used to encapsulate any work platform/stabilization material having a D15 particle size greater than 0.5mm. The D15 is defined as the particle size for which 15% by weight of particles are smaller.

#### 2.1.6 Select Granular Material

Select granular material shall consist of crushed gravel or crushed stone composed of hard, tough and durable particles, and shall contain not more than 10 percent by weight of material passing a No. 200 mesh sieve, no more than 50 percent by weight of material passing a the No. 4 mesh sieve, and no less than 95 percent by weight passing the 1 inch sieve. The maximum allowable aggregate size shall be 1-1/2 inches, or the maximum size recommended by the pipe manufacturer, whichever is smaller.

#### 2.1.7 Drainage Fill Material

Drainage fill material shall consist of sand classified in ASTM D 2487 as

SP or SW as determined by ASTM D 422. Drainage fill material shall contain not more than 4 percent by weight passing a No. 200 mesh sieve and not less than 95 percent by weight the U.S. No. 4 sieve.

## 2.2 SETTLEMENT GAGES

Settlement gages shall be constructed as shown in the contract drawings. The contractor shall maintain a supply of instrument pipe and protective casing risers required to raise the instruments through the embankment on the project site. These parts shall be protected from damage and shall be maintained in a clean functional condition until installation by the Contractor.

## PART 3 EXECUTION

### 3.1 SHORING, SHEETING, AND BRACING

Shoring, sheeting, and bracing shall be installed where required for the protection of existing natural features and man-made facilities, for the safety of workers and the public, in compliance with EM 385-1-1, and to insure the integrity of the embankment. Shoring, sheeting and bracing shall not be used in lieu of the required excavation slopes. Shoring, sheeting, and bracing shall be adequately designed and properly installed to withstand anticipated loads. Shoring, sheeting and bracing shall be planned and designed by a registered professional engineer. The Contractor shall submit a plan for shoring, sheeting, and bracing in accordance with paragraph SUBMITTALS. All shoring, sheeting and bracing shall be removed as embankment and backfill operations progress.

### 3.2 DEWATERING AND DIVERSION

Surface and groundwater control shall be accomplished in coordination with the required excavation and embankment construction. Surface and/or groundwater control may necessitate the use of temporary diversion ditches, coffer dams and/or dewatering by the use of pumping. Methods for care of surface water and for controlling the surface and groundwater levels shall be subject to approval of the Contracting Officer.

### 3.3 EXCAVATION

Excavation shall consist of removal of material in preparing the foundations to the lines and grades shown on the drawings, removal of material from ditches and channels to the lines and grades shown on the drawings, removal of objectionable materials and obtaining required fill materials from the borrow areas. The contractor shall verify the location of all existing utilities prior to any excavation. Kansas One Call (1-800-344-7233) shall be contacted for a utility locate. Blasting will be permitted. Over excavation shall be backfilled to grade with similar over excavated material or satisfactory material and compacted to a density of at least that of the surrounding material. Excavation will not be paid for as a separate bid item, but shall be subsidiary to placement of fill or structure construction.

#### 3.3.1 Over Excavation

##### 3.3.1.1 Outside Limits of Levee Foundations or Structures

Over excavation outside the limits of the foundations of levees or